In This Section

- Identified Basin Planning and Management Concerns
- Priorities for Water Quality Concerns
- Priorities for Water Quantity Concerns

Section 6

Concerns and Priority Issues

The assessments in Section 5 present a number of water quality and quantity concerns within the Tallapoosa River basin. This section aggregates the assessment data to identify priority issues for development of management strategies.

6.1 Identified Basin Planning and Management Concerns

Sections 4 and 5 identified both site-specific and generalized sources of water quality stressors. Some issues are limited to specific segments, but a number of water quality concerns apply throughout the basin. The criterion listed most frequently in *Water Quality in Georgia, 1996-1997* as a contributor to non-supporting or partially-supporting status was fecal coliform bacteria (43 out of 146 miles, or 29 percent of the stream miles assessed within the basin), followed by metals such as zinc, copper, and lead (14 out of 146 miles, or 10 percent of assessed stream miles). Fecal coliform bacteria violations are most often attributed to "urban runoff" as a primary source (22 miles), followed by nonpoint sources (21 miles), while excursions of the metal standards are most often attributed to nonpoint sources (10 miles), followed by contamination from former industrial sources (4 miles). Urban runoff and general nonpoint sources represent a basinwide concern.

Major water quality and quantity concerns for the Tallapoosa River basin are summarized by geographic area in terms of the concerns and sources of these concerns in Table 6-1. Table 6-2 summarizes the pollutants identified as causing impairment of designated uses in the basin; however, not all identified concerns are related to pollutant loads. Ongoing control strategies are expected to result in support of designated uses in a number of waters. In other waters, however, the development of additional nonpoint control strategies might be required to achieve water quality standards.

In the following pages, priority water quality and quantity concerns are presented for the entire Georgia portion of the Tallapoosa River basin, which is encompassed in one Hydrologic Unit. Detailed strategies for addressing these concerns are then supplied in Section 7.

Table 6-1. Summary of Concerns in the Tallapoosa River Basin

	Source of the Stressor
Stressors of Concern	**Tallapoosa River basin (HUC 03150108)**
Metals	Former industrial discharges, nonpoint sources
Fecal Coliform Bacteria	Urban and rural nonpoint sources
Erosion and Sedimentation	Urban and rural nonpoint sources
Nutrients	Point and nonpoint phosphorus loads
Water Quantity Demand	Competing needs; lack of storage capacity
Source Water Protection for Drinking Water Sources	Surface water sources in need of protection

Table 6-2. Summary of Pollutants Causing Water Quality Impairment in the Tallapoosa River Basin

	Stressor
Use Classification of Waterbody Segments	**Tallapoosa River basin (HUC 03150108)**
Fishing (Support for Aquatic Life)	Metals, toxicity
Fishing (Secondary Contact Recreation)	Fecal coliform bacteria

Each concern is listed in the form of a "Problem Statement" that summarizes the linkage between stressor sources and water quality impacts. The order in which concerns are listed should not be considered to be significant. Prioritization of basin concerns requires consensus among all stakeholders and has not been finalized; however, short-term water quality action priorities for EPD are summarized in Section 6.2. Priorities for addressing water quantity issues within the Tallapoosa basin are being addressed as part of the ACT/ACF study and are summarized in Section 6.3.

6.1.1 Problem Statements

Tallapoosa River Basin (HUC 03150108)

Metals

The water use classification of fishing was not fully supported in one Tallapoosa River mainstem segment, and in two tributary stream segments due to exceedances of the water quality standards for metals. Lead standards were exceeded in the river due to nonpoint sources; lead, copper, cadmium, nickel, zinc, and/or selenium standards were exceeded in Buffalo Creek and a tributary stream due primarily to an industrial site.

Fecal Coliform Bacteria

The water use classification of fishing or drinking water was not fully supported in one Tallapoosa River mainstem segment, one Little Tallapoosa River mainstem segment and 3 tributary stream segments due to exceedances of the water quality standard for fecal coliform bacteria. Four are attributed to urban nonpoint sources, representing a combination of urban runoff, septic systems, sanitary sewer overflows. One is attributed to rural nonpoint sources.

Erosion and Sedimentation

The water use classifications of fishing or drinking water are potentially threatened in water body segments by erosion and loading of sediment, which can alter stream morphology, affect habitat, and reduce water clarity. Potential sources include urban runoff and development (particularly construction), unpaved rural roads, stream erosion

(including headcutting, bank erosion, and shifting of the bedload forestry practices, and agriculture. No stream segments in this basin are listed as not fully supporting designated uses due to poor fish communities or sedimentation; however, threats from sediment load are possible throughout the Tallapoosa River basin. A common strategy is proposed for addressing erosion and sedimentation throughout the basin. However, achieving standards in individual stream segments will depend on the development of site-specific local management plans.

Nutrients

The water use classifications of fishing and recreation are potentially threatened in Harris Reservoir due to inputs of nutrients, which might cause excess algal growth in the lake. Nutrient sources include water pollution control plant discharges and nonpoint sources from urban and agricultural areas.

Threatened and Endangered Species

The Tallapoosa basin is home to a number of aquatic species which have been listed as threatened or endangered and require protection (see Table 2-3).

Water Quantity Demand

Sufficient water quantity to meet the competing demands for drinking water, minimum instream flow rate, and recreation uses might not be available within the Tallapoosa River basin (HUC 03150108). In addition, the state of Alabama is concerned about the potential effects of reservoir construction and growth of water use in west Georgia on downstream water flow and availability.

Source Water Protection for Drinking Water Sources

Many public water supplies have no control over their source watersheds and have to spend additional treatment dollars to ensure a high-quality water supply. All streams with municipal water intakes need to have watershed assessments and protection plans developed and implemented.

6.2 Priorities for Water Quality Concerns

6.2.1 Short-Term Water Quality Action Priorities for EPD

Section 6.1 identifies known priority concerns for which management and planning are needed. Because of limited resources and, in some cases, limitations to technical knowledge, not all of these concerns can be addressed at the same level of detail within the current 5-year cycle of basin management. It is therefore necessary to assign action priorities for the short term based on where the greatest return for available effort can be expected.

Current priorities for action by EPD (1998) are summarized in Table 6-3 and discussed below. These reflect EPD's assessment of where the greatest short-term return can be obtained from available resources, but have not yet been refined through consultation with other basin stakeholders. They do not necessarily address all water quality concerns within the current management cycle. These priorities were presented to and discussed with the local advisory committee in February 1998. In addition, the priorities were presented to the public in a stakeholder meeting in Carrollton in February, 1998. The priorities were also public noticed and approved by the USEPA as part of the Georgia CWA 303(d) listing process in 1998. They are discussed in the report *Water Quality in Georgia, 1996-1997*.

Assigning Priorities for Stream Segments

For many waters in the Tallapoosa River basin, currently planned control strategies are expected to result in attainment of designated uses. The majority of EPD resources will be directed to ensure that ongoing pollution control strategies are implemented as planned and water quality improvements are achieved. These waters (see Appendix E) are identified as active 305(b) waters. They are the highest priority waters since these segments will continue to require resources to complete actions and ensure standards are achieved. These stream segments have been assigned priority one (see Table 6-3).

Table 6-3. EPD's Short-Term Priorities for Addressing Waters Not Fully Supporting Use

Priority	Type
1	Segments where ongoing pollution control strategies are expected to result in achieving support of designated uses; active special projects.
2	Segments with multiple data points that have shown metals in excess of water quality standards and segments in which dissolved oxygen is an issue.
3	Waters for which urban runoff and generalized nonpoint sources have resulted in violations of standards for metals or fecal coliform bacteria.

Second priority was allocated to segments with multiple data points that have shown metals concentrations from nonpoint sources in excess of water quality standards and to segments in which dissolved oxygen concentration is an issue (see Table 6-3).

Third priority was assigned to waters where urban runoff and general nonpoint sources have caused metal or fecal coliform bacteria standards violations. Waters added to the Georgia 303(d) list by EPA were also assigned to third priority. Within the current round of basin planning, these sources will be addressed primarily through general strategies of encouraging best management practices for control of stressor loading (see Table 6-3).

Several issues helped forge the rationale for priorities. First, strategies are currently in place to address the significant water quality problems in the Tallapoosa River basin and significant resources will be required to ensure that these actions are completed. Second, the vast majority of waters for which no control strategy is currently in place are listed as impaired as a result of exceedance of criteria for metals or fecal coliform bacteria due to urban runoff or nonpoint sources. At the present time, the viability of the standards for metals and the efficacy of the fecal coliform bacteria standard are in question in the scientific community, as described in Section 4.2. Also, in many cases, the metals database was minimal with as few as one data point showing a concentration in excess of standards placing a stream reach or area of a lake on the partial support lists.

6.2.2 General Long-Term Priorities for Water Quality Concerns

Long-term priorities for water quality management in the Tallapoosa River basin will need to be developed by EPD and all other stakeholders during the next iteration of the basin management cycle. Long-term priorities must seek a balance between a number of different basinwide objectives. These objectives include:

- Protecting water quality in lakes, rivers, and streams through attainment of water quality standards and support for designated uses.
- Providing adequate, high-quality water supply for municipal, agricultural, industrial, and other human activities.

- Preserving habitat suitable for the support of healthy aquatic and riparian ecosystems.
- Protecting human health and welfare through prevention of waterborne diseases, minimizing risk from contaminated fish tissue, and reducing risks from flooding.
- Ensuring opportunities for economic growth, development, and recreation in the region.

6.3 Priorities for Water Quantity Concerns

Section 5 also identified a number of concerns for water quantity in the Tallapoosa basin, including existing problems with minimum instream flows and potential future problems for competing demands on water quantity.

6.3.1 Priorities for Competing Demands

With regard to the priority to be placed on meeting competing demands for future water use, EPD (in conjunction with a broad group of stakeholders from north, central, and southwest Georgia) has established a set of "guiding principles" which will be followed in developing the state's position regarding the allocation of water among the states of Alabama, Florida, and Georgia. These principles are partially based upon the prioritization given to meeting categories of water needs under Georgia law (i.e., municipal needs are the first priority, and agricultural water needs are second; all other water needs follow these two). The principles are summarized below:

1. Municipal (M&I) demands have the highest priority.
2. Agriculture needs must be satisfied.
3. Minimum instream flow rates must be met in order to preserve water quality.
4. If other demands (e.g., industry, recreation, hydropower, navigation, and environment) cannot be met under conditions of water shortage, efforts will be made to optimize the mix of economic and environmental values.

Although these "guiding principles" were specifically developed to give expression to Georgia's water needs priorities in those areas of Georgia within the study area of the Alabama-Coosa-Tallapoosa/Appalachicola-Chattahoochee-Flint (ACT/ACF) Comprehensive Study, it is likely that they characterize water needs priorities throughout the state. Thus, Georgia places highest value on the use of water for its citizens to use in drinking and water for agricultural needs. It is also extremely important to address needs for sufficient instream flows to maintain acceptable quality of aquatic habitat.

The Interstate Compact, which has been drafted by the states and Federal government for the ACT basin, does not give the Commission power to determine how Georgia must allocate its share of available water among competing uses; that decision, and the mechanism to implement that allocation, is left to the EPD. Of course, the larger Georgia's share of the available water resource in these basins, the less often any single demand will not be met.

6.3.2 Regional Water Supply Options

In managing Georgia's surface waters, EPD's approach is to meet as many of the identified water needs to the highest extent practicable, while minimizing adverse impacts associated with meeting those needs. Of foremost importance in meeting those needs is maximizing use of already developed water resources along with aggressive water conservation.

Expected population growth in the Tallapoosa basin over the next several decades is likely to result in exhaustion of the water supplies available from already developed sources, even with the employment of very aggressive water conservation measures. New sources will have to be identified and developed. As the population of county and sub-county political jurisdictions in the Tallapoosa River basin continues to expand, the need for water resources is likely to grow beyond the capability of single political jurisdictions to meet demand from the water resources within their political boundaries. Currently there are no regional water sources in the Tallapoosa basin; however, the West Georgia Regional Reservoir project has been proposed. Without additional sources, economic growth may be limited by the capabilities of existing local and regional water resources.